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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/055,546	01/23/2002	Kyle G. Brown	RSW920010178US1	8874

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EXAMINER

NGUYEN, VAN H

ART UNIT PAPER NUMBER

2194

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/055,546

Applicant(s)

BROWN ET AL.

Examiner

VAN H. NGUYEN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-13 are pending in this application.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, 6, 7, 9-11, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by **Moore et al.** (U.S. 6,408,342 B1).

4. **As to claim 1:**

Moore teaches the invention as claimed including a multi-protocol object distribution system (*e.g., a communication framework supporting multiple communications protocols; see the abstract and col.6, lines 23-32*) comprising:

- a. a plurality of remote procedure call transport protocol stubs (*e.g., ONC RPC, DCE RPC, CORBA IIOP, SMTP, SNMP, HTTP, and Java/RMI. Corresponding to each protocol is a Remote Procedure Call Transport 305; col.8, lines 1-4*); and
- b. a meta-stub configured to select individual ones of the RPC transport protocol stubs through which distributed object services can be provided to requesting clients in the object distribution system (*e.g., The Stub object 303 contains a decision logic for determining which protocol to use in accessing the target object*

of a remote method invocation...the protocol with the matching the Quality of Service (QoS) required by the Stub 303 is selected; col.19, lines 37-54).

5. **As to claim 2:**

Moore teaches the RPC transport protocol stubs comprise: a default RPC transport stub (*e.g., a current binding for the ObjectReference 501; col. 20, lines 2-5*), the meta-stub having a further configuration for automatically selecting the default RPC transport stub by default (*e.g., the selection of a protocol is dynamic; col. 7, lines 52-53*); and, at least one other RPC transport stub which the meta-stub can select based upon changing conditions in the object distribution system (*e.g., protocol is being used may changed from one invocation of a remote method to the next ; col.7, lines 53-54*).

6. **As to claim 6:**

Moore teaches the invention as claimed including in a multi-protocol object distribution system (*e.g., a communication framework supporting multiple communications protocols; see the abstract and col.6, lines 23-32*), a remote procedure call processing (*e.g., a remote procedure call class, one remote procedure call transport; see the abstract*) method comprising:

- a. receiving an RPC request for services from a distributed object in a server in the multi-protocol object distribution system (*e.g., the Stub object receives a remote method invocation; col. 20, lines 1-2 and fig. 12*);
- b. establishing a communicative link with the distributed object using a default RPC transport mechanism (*e.g., if there is a current binding for the ObjectReference 501, the decision logic attempts to establish the connection using*

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that current binding; col. 20, lines 2-5 and fig. 12), and querying the distributed object over the communicative link for other RPC transport mechanisms (e.g., querying the various registered RPC_Transports 305; col.21, lines 8-10 and lines 36-43) which are supported by the server (e.g., those registered in the supported protocols list 417; col. 21, lines 9-10);

- c. *selecting one the other RPC transport mechanisms (e.g., the protocol with the matching the Quality of Service (QoS) required by the Stub 303 is selected; col.19, lines 51-54) and re-establishing the communicative link with the distributed object using the selected RPC transport mechanism (e.g., If the queried RPC_Transport 305 indicates that it can make the connection and meet any required QoS conditions, step 624, the decision logic attempts to establish the connection ... indicating that a communication channel has been established; col.21, lines 13-22); and*
- d. *processing the RPC request for services from the distributed object over the re-established communicative link (fig. 12 and 13 show the purpose of selecting a protocol and establishing a communication link is to process the RPC request for services).*

7. **As to claim 7:**

Moore teaches detecting a deterioration in communications over the new communicative link (*e.g., if the QoS provided by RPC_Transport 305 deteriorates during the course of the execution of a program; col.21, lines 44-46*); further reestablishing the communicative link with the default RPC transport mechanism; and, continuing to

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process the RPC request for services over the further reestablished communicative link
(e.g., *repeat the procedures of FIGS. 13 and 12 at any invocation of a method of a remote object; col.21, line 44-50*).

8. As to claim 9:

Moore teaches surveying network conditions (e.g., *querying the various registered RPC_Transport 305; col.21, lines 8-9*); and, selecting one of the RPC transport mechanisms best suited to provide a predetermined level of Quality of Service (QoS) in view of the surveyed network conditions (e.g., *If the queried RPC_Transport 305 indicates that it can make the connection and meet any required QoS conditions, step 624, the decision logic attempts to establish the connection; col.21, lines 14-18*).

9. As to claims 10, 11, and 13:

Note the rejection of claims 6, 7, and 9 above. Claims 10, 11, and 13 are the same as claims 6, 7, and 9, except claims 10, 11, and 13 are machine readable storage claims and claims 6, 7, and 9 are method claims.

Claim Rejections - 35 USC § 103

10. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

11. Claims 3-5, 8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Moore et al.** in view of **Mein et al.** (U.S. 6,782,542 B1).

12. As to claim 3:

- a. Moore does not specifically teach a simple object access protocol over hypertext transfer protocol stub.
- b. Mein teaches a simple object access protocol over hypertext transfer protocol stub (*e.g., A Simple Object Access Protocol ... layered on top of HTTP; col.3, lines 18-21*).
- c. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Mein with Moore because Mein's teachings would have allowed Microsoft Component Object Model Automation objects to be accessed and methods to be invoked over the Internet through Web servers protected by firewalls.

13. As to claim 4:

Refer to the discussion of claim 3 above for the use of a SOAP over HTTP stub.

14. As to claim 5:

Moore teaches the RCP transport protocol stubs further comprises, among other things, a remote method invocation (*e.g., Java/RMI; col. 7, lines 16-19 and col.8, lines 5-8*) over Internet Inter-ORB Protocol stub (*e.g., CORBA IIOP; col. 7, lines 16-19 and col.8, lines 5-8*).

15. As to claim 8:

- a. Moore does not specifically teach determining whether the requested service implicates asynchronous or synchronous messaging; and, selecting an optimal RPC transport mechanism supported by the server based upon the determination.

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- b. Mein teaches determining whether the requested service implicates asynchronous or synchronous messaging; and, selecting an optimal RPC transport mechanism supported by the server based upon the determination (*e.g., when the server 30 receives the HTTP POST message...invokes a SOAP stub...based on an identifier contained in the header of the data structure; col.5, lines 39-45*).
- c. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teachings of Mein with Moore because Mein's teachings would have provided the capability for efficiently performing protocol-mandated data transformations.

16. **As to claim 12:**

Note the rejection of claim 8 above. Claim 12 is the same as claim 8, except claim 12 is a machine readable storage claim and claim 8 is a method claim.

Response to Arguments

- 17. Applicant's arguments filed May 09, 2005 have been fully considered but they are not persuasive.
- 18. In the remarks, Applicant argued in substance that Moore does not teach the selection of a particular sub able to support a particular communications protocol from a meta-stub supporting a default communications protocol."
- 19. Examiner respectfully traverses Applicant's remarks.

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20. Applicant is arguing the disclosure, not the claim limitations. Claimed subject matter, not the specification is the measure of the invention. Limitations in the specification cannot be read into the claims for the purpose of avoiding the prior art. See In re Self, 213 USPQ 1,5 (CCPA 1982); In re Priest, 199 USPQ 11, 15 (CCPA 1978). The Examiner has a *duty* and *responsibility* to the public and to Applicant to interpret the claims *as broadly as reasonably possible* during prosecution (see *In re Prater*, 56 CCPA 1381, 415 F.2d 1393, 162 USPQ 541 (1969)).
21. Accordingly, the cited references do teach the recited claim limitations as shown through the mapping provided in the claim rejections.

Conclusion

23. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
- Goldsmith et al. (US 5491800 A) "Object-oriented remote procedure call networking system"
 - Hill et al. (US 5511197 A) "System and method for rapid wireless application Method and system for network marshalling of interface pointers for remote procedure calls "
 - Pettus et al. (US 5515508 A) "Client server system and method of operation including a dynamically configurable protocol stack"

- Wei (US 5701415 A) "Method for creating stub file supporting remote procedure calls by generating common code including code utilized by stub procedures to invoke plurality of service procedures"

- Vasudevan et al. (US 5887172 A) "Remote procedure call system and method for RPC mechanism independent client and server interfaces interoperable with any of a plurality of remote procedure call backends"

- Kays et al. (US 6249822 B1) "Remote procedure call method"

24. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
26. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.
27. Any inquiry or a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: (571) 272-2100.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to VAN H. NGUYEN whose telephone number is (571) 272-3765. The examiner can normally be reached on Monday-Thursday from 8:30AM - 6:00PM. The examiner can also be reached on alternative Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Meng-Ai An can be reached on (571) 272-3756.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
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